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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/026,520	12/27/2001	Byung Keun Lim	P-0315	9390
34610	7590	02/27/2006	EXAMINER	
FLESHNER & KIM, LLP P.O. BOX 221200 CHANTILLY, VA 20153			MEHRA, INDER P	
			ART UNIT	PAPER NUMBER
			2666	

DATE MAILED: 02/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

7V

<b>Office Action Summary</b>	Application No.	Applicant(s)	
	10/026,520	LIM, BYUNG KEUN	
	Examiner	Art Unit	
	Inder P. Mehra	2666	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2005.
- 2a) ☐ This action is FINAL.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,3,4,6-9,11-13 and 15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3,4,6-9,11-13 and 15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### DETAILED ACTION

1. This office action is in response to amendment dated: 12/8/05. Based on this amendment, claims 1, 3-4, 6-9, 12-13, and 15 are pending. Claims 2, 5, 10 and 14 have been cancelled.

### *Claim Rejections - 35 USC § 103*

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 3-4, 6-9, 11-13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Jason Stuart Flynn** (US 6,549, 522 B1), hereinafter, Flynn, and **Admitted Prior Art (figs. 1-5) and 'Background of the Background Art'**, hereinafter 'APR', and in view of **Feder et al** (US Patent Application No. 2002/0089958), hereinafter, Feder, and further in view of **Magret et al** (US Patent No. 6,988,146), hereinafter, Magret.

Regarding claims 1 and 7, Flynn discloses a hand-off notifying and controlling system and method are disclosed in Fig. 2. A module node (MN) that transmits a registration request message is anticipated by the element 6. A first foreign agent (FA) that provides a mobile Internet protocol (IP) service to the MN before a hand-off of the MN takes place is anticipated by the element 10. A second foreign agent (FA) that provides a mobile Internet protocol (IP) service to the MN before a hand-off of the MN takes place is anticipated by the element 11. A home agent (HA)

that generates and transmits a registration release message to the first FA, upon receipt of the registration request from the MN sent via the second FA, when the hand-off takes place is anticipated by the element 7.

Admitted Prior Art (APR) discloses, in reference to figs. 1-5, a hand-off notifying and controlling system, comprising:

- a mobile node (MN) that transmits a registration request message (**fig. 2, S2 in fig. 4, paragraph 13, paragraph 16**);
- a first foreign agent (FA) that provides a mobile internet protocol (IP) service to the MN, before a hand-off of the MN takes place, **refer to paragraphs 19**;
- a second FA that provides the mobile IP service to the MN after the hand-off takes place, **refer to paragraph 19**;

Flyn and APR do not disclose explicitly the following limitation, which is disclosed by Feder and Magret, as follows:

- a home agent (H.A) that generates and transmits a registration release message to the first FA, upon receipt of the registration request message from the MN sent via the second FA, when the hand-off takes place (**Feder also discloses above limitation, refer to paragraphs, 0326, 0330 and 0331**) and (**refer to APR paragraph 14**), -
- the HA scattering the life time field of the registration release message to the value of 0 causing the first FA to delete prior registration information of the MN, stored in at least a visitor table, after receipt of the registration release message, (**refer to col. 14 lines 55-61, (refer to Magret's col. 17 lines 50-55-**

**“A lifetime of 0 indicates that a previous subscription will be cancelled”),  
and col. 25 lines 5-8).**

It would have been obvious to the person of ordinary skill in the art at the time the invention to use the capability “a home agent (H.A) that generates and transmits a registration release message to the first FA, upon receipt of the registration request message from the MN sent via the second FA, when the hand-off takes place- the HA scattering the life time field of the registration release message to the value of 0 causing the first FA to delete prior registration information of the MN , stored in at least a visitor table, after receipt of the registration release message”, as taught by Magret. The capability can be implemented by setting the limit on lifetimes in the table. The motivation for using this capability can enhance the handoff process and source update message.

For claims 3, 8, and 12, Flun and APR discloses a hand-off notifying and controlling method in a mobile communication network, Fig. 2 of Flynn, and figs. 1-5 of Admitted Prior Art (APR) of instant application, comprising'.

- transmitting a registration request message from a mobile node (MN) to a new foreign agent (FA), when a hand-off of the MN to the new FA takes place, **refer to fig. 2 element 6 of fig. 2 of Flynn, and Fig 4 step S2 of APR;;**
- transmitting the registration request message received by the new FA to a home agent (HA) of the MN, **refer to step S5 of Fig. 4 of APR;**
- transmitting a registration release message, having a data structure and type field value the same as the registration request message, from the HA that has

received the registration release message from the new FA to an old FA; and deleting registration information of the MN, stored in at least a visitor table of the old FA (**refer to APR paragraph 14**), in accordance with the registration release message, **refer to APR's fig. 2-'Registration Request'** same as **"Registration Release Message", as recited in claims 3, 8 and 12,**

Feder also discloses above limitation, refer to paragraphs, 0326, 0330 and 0331.

Flyn, APR in view of Feder do not disclose explicitly the following limitation, which is disclosed by Magret, as follows:

- wherein the HA sets a life time field of the registration release message to a value of 0 to cause the deletion of the registration information of the MN in the old FA that provided mobile IP service to the MN before the hand-off, (**refer to col. 14 lines 55-61, (col. 17 lines 50-55-"A lifetime of 0 indicates that a previous subscription will be cancelled"**), and **col. 25 lines 5-8**).

It would have been obvious to the person of ordinary skill in the art at the time the invention to use the capability "a home agent (H.A) that generates and transmits a registration release message to the first FA, upon receipt of the registration request message from the MN sent via the second FA, when the hand-off takes place- the HA scattering the life time field of the registration release message to the value of 0 causing the first FA to delete prior registration information of the MN , stored in at least a visitor table, after receipt of the registration release message", as taught by Magret. The capability can be implemented by setting the limit on

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lifetimes in the table. The motivation for using this capability can enhance the handoff process and source update message.

For claims 4, 9 and 13, APR discloses wherein the registration release message, **(which is same as registration request message, see specification paragraph 0056)**

Comprises:

a type field set to identify a type of message;

a life time field that sets an effective registration time of the MN;

a home address field that sets an IP address of the MN;

a home agent field that sets an IP address of the HA;

a care-of-address field that sets an IP address of an ending point of a tunnel; and

an identification field set to associate the registration request message and a

registration reply message. **(refer to paragraphs 20-25 of Background Art).**

For claims 6, 11 and 15, Flynn discloses wherein the HA does not transmit a registration release message, if an IP address of the MN is a multiple care-of address **(refer to col. 3 line 50- through col. 4 line 8, - where multiple simultaneous mobility bindings are analogous to multiple care-of addresses of the claimed invention and that the Home Agent retains its existing list of mobility bindings when it receives a Registration Request containing the IP address of a new foreign agent which means the HA does not transmit a registration release message, if an IP address of the MN is a multiple care-of address where existing**

**list of mobility bindings is the equivalent of multiple care-of addresses of the claimed invention).**

*Response to Arguments*

4. Applicant's arguments with respect to claims 1, 3-4, 6-9, 11-13 and 15 have been considered but are moot in view of the new ground(s) of rejection.

*Conclusion*

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Inder P. Mehra whose telephone number is 571-272-3170. The examiner can normally be reached on Monday through Friday from 8AM to 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Seema Rao can be reached on 571-272-3174. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*Inder Pal Mehra* 2/19/06  
Inder P Mehra  
Examiner  
Art Unit 2666

*Tonnam*  
DANG TON  
PATENT EXAMINER